



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

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SECRETARY

MEMORANDUM TO: Project Engineers
Project Design Engineers

FROM: G. R. Perfetti, P. E.
State Bridge Design Engineer

DATE: January 22, 2004

SUBJECT: PRECAST BOX CULVERTS

Effective immediately, the option to construct a Precast Box Culvert in lieu of the cast-in-place culvert shown in the plans is permitted in all Divisions, except where limited by maximum design fill. The Precast Box Culvert option shall not be allowed if the maximum design fill over the culvert exceeds 10 ft (3m) in Divisions 1-4, 6, 8, and 15 ft (4.5m) in Divisions 5, 7, and 9-14.

This policy shall be in effect for all culvert designs. The Division Office has the final decision on whether to allow the Precast Box option, even if the above requirements are met. Therefore, when attending the Preliminary Field Inspection inquire if the Precast Box option should be allowed.

When the planning report requires a Precast Box Culvert to satisfy staging and time requirements, a cast-in-place culvert option shall still be designed and detailed in the plans. In this occurrence, place the following note on the plans:

The Contractor may choose to construct a cast-in-place culvert in accordance with the included plans at no additional cost to the department. The contract requirements with respect to construction staging and time shall be satisfied regardless of whether a precast or cast-in-place culvert is constructed.

In addition to limiting the use of the Precast Box Culvert option, various changes to construction procedures such as prohibiting the use of precast wings, jacking precast units together, and internally and externally sealing transverse box joints will be reflected in the Project Special Provisions.

The Design Manual, Project Special Provisions, and the Precast Box Culvert Standard will be revised to reflect this policy at a later date.

GRP/DAS

Project Engineers
Project Design Engineers

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